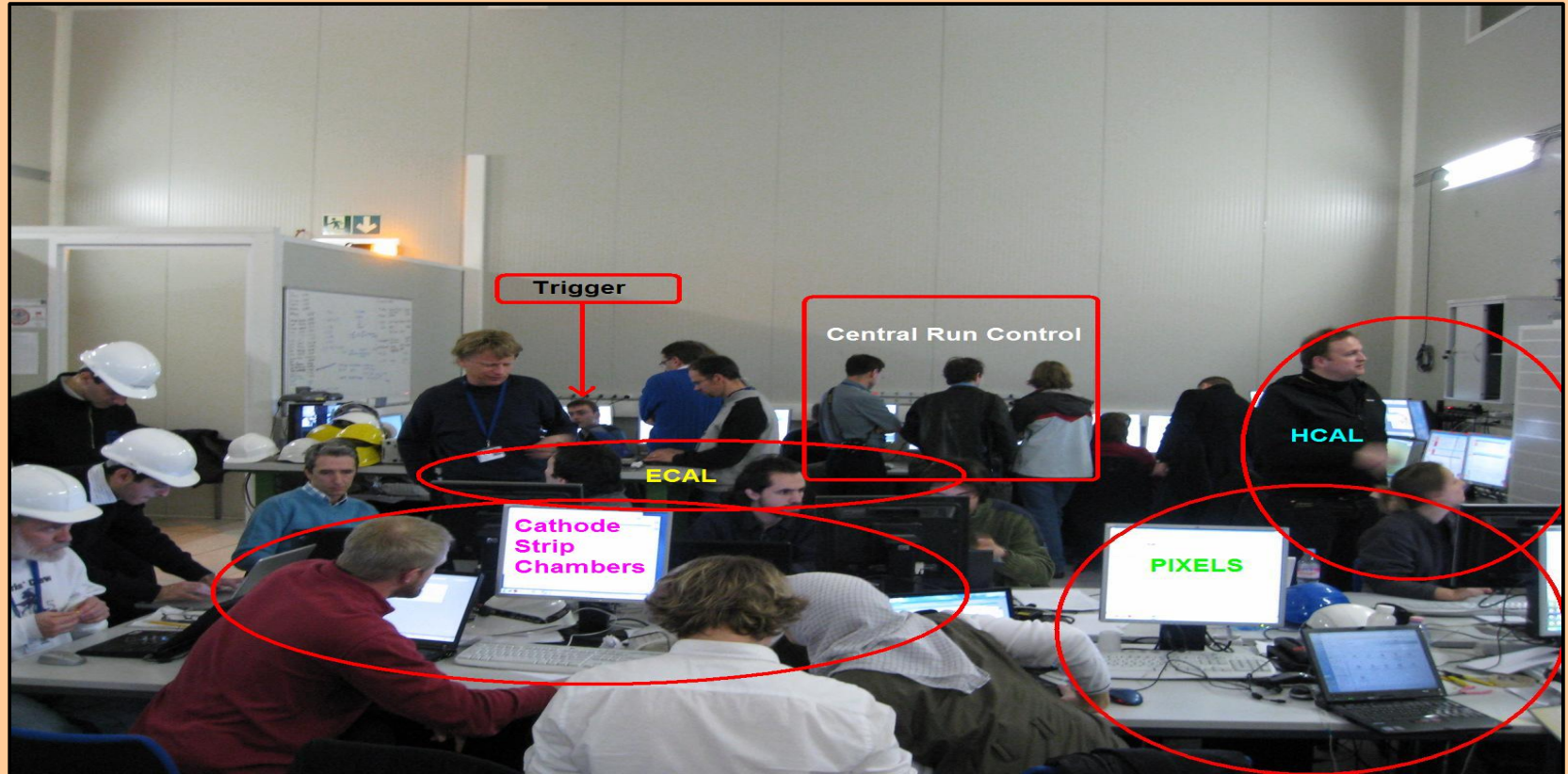


Global Run Experience with the Pixels-in-a-Box

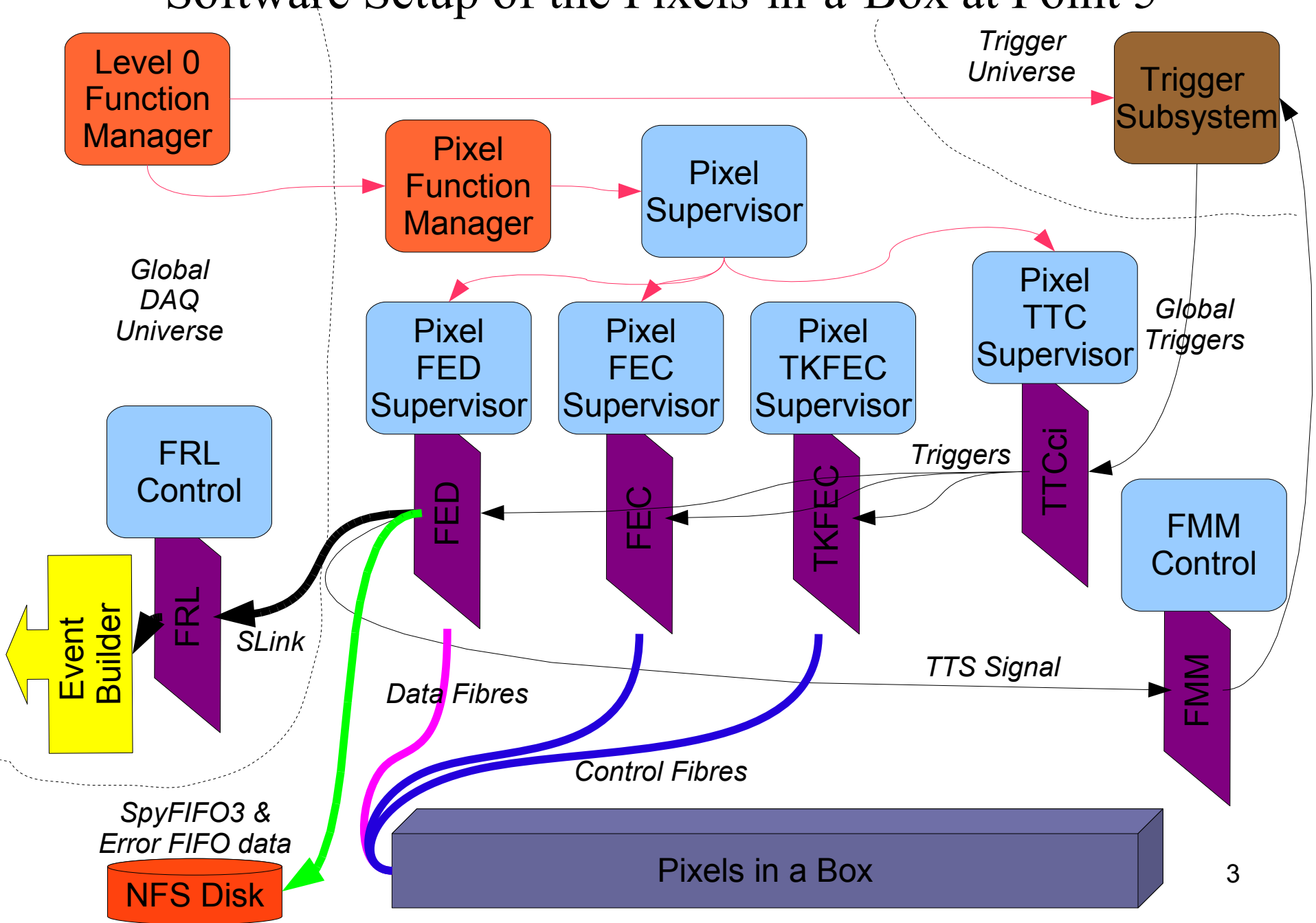
Souvik Das
(Cornell University)

A Brief Report



- The subset of the Pixel Online Software version 2.6.6 was deployed: PixelFunctionManager, RS 3 Configuration, PixelSupervisor, PixelFECSupervisor, PixelTKFECSupervisor, PixelFEDSupervisor, PixelTTCSupervisor. Worked seamlessly with Run Control, Central Trigger and final DAQ.
- We did a Delay25 Calibration, CalDelay-WBC Calibration, VcThreshold-CalDelay Calibration, Address Levels Calibration, FED Baseline Calibration and a Pixel Alive Scan before we sent the PIB into action.
- It is now fully controlled by the Central Run Control now and needs little intervention from us.
- We are the most stable system so far!

Software Setup of the Pixels-in-a-Box at Point 5



Logs, Commentaries and Data Files

- Most of the data was taken with triggers from the Drift Tube (DT) at 70 Hz. Occasionally Resistive Plate Chambers (RPC) triggers were added in. A brief commentary of each run taken on the 6th, 11th and 12th of March are available at:

<http://spreadsheets.google.com/pub?key=pBwd4hDF5QT-oABcMBvI7Fw&gid=4>

- More details for each run for the whole detector can be found by entering the Run Number you're interested in at:

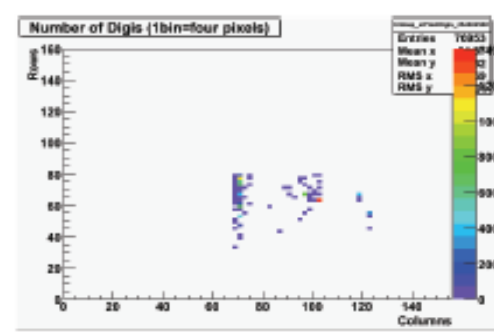
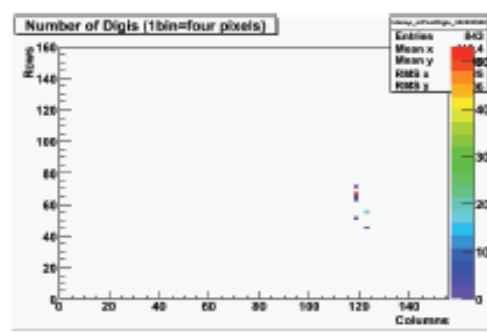
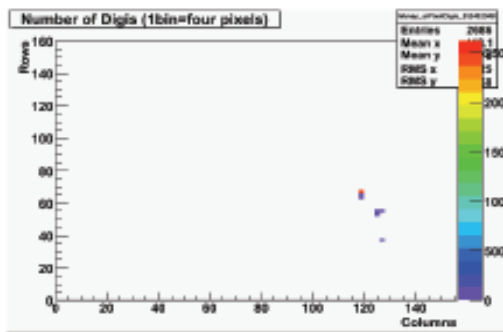
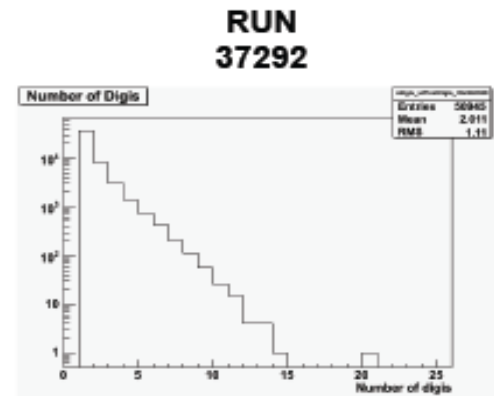
http://cmsmon.cern.ch/cmsdb/servlet/RunSummary?DB=cms_omds_lb

- A pre-scaled sampling of the data taken via Spy FIFO 3 of the FED was written in

`vmepcs2b18-11.cms:/home/PIBData/`

Occupancy Plots from Offline Software Group

- We took some data for different values of $VcThreshold$ just to see if we get the expected increase and decrease in occupancies.
- The data collected is being sent by DAQ's Event Builder through Storage Manager to Tier 0 automatically for Offline Analysis. Vincenzo Chiochia produced and showed us these occupancy plots for various runs at the Pixel Offline Software Meeting:



*VcThreshold value
optimized by
calibration minus 10*

*VcThreshold value
optimized by
calibration plus 10*

*VcThreshold value
optimized by
calibration plus 20*